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=> FILE REG
FILE 'REGISTRY' ENTERED AT 18:40:44 ON 10 SEP 2008
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=> DISPLAY HISTORY FULL L1-

     FILE 'REGISTRY' ENTERED AT 16:43:55 ON 10 SEP 2008
L1          518 SEA (N (L) O)/ELS (L) 2/ELC.SUB
                E NITROUS OXIDE/CN
L2            1 SEA "NITROUS OXIDE"/CN
                E NITROGEN OXIDE/CN
L3            1 SEA "NITROGEN OXIDE"/CN
L4          519 SEA L1 OR L2 OR L3
                E TITANIUM DIOXIDE/CN
L5            1 SEA "TITANIUM DIOXIDE"/CN
L6          493 SEA (TI (L) O)/ELS (L) 2/ELC.SUB
                E TUNGSTIC ACID/CN
L7            2 SEA "TUNGSTIC ACID"/CN
                D L7 1-2 IDE
L8          158 SEA 14311-52-5/CRN
L9          159 SEA L7 OR L8
L10          95 SEA (CE (L) O)/ELS (L) 2/ELC.SUB
                E CERIUM OXIDE/CN
L11           2 SEA "CERIUM OXIDE"/CN
L12          96 SEA L10 OR L11

     FILE 'LCA' ENTERED AT 18:22:53 ON 10 SEP 2008
L13         364 SEA (N OR NITROGEN# OR NITROUS# OR NITRIC#)(W)(OXIDE# OR
                MONOXIDE# OR SESQUIOXIDE# OR DIOXIDE# OR TRIOXIDE# OR
                TETROXIDE# OR TETRAOXIDE# OR PENTOXIDE# OR PENTAOXIDE#)
L14         613 SEA NOX OR NO2 OR NO4 OR NO5 OR N2O OR N2O2 OR N2O3 OR
                N2O4 OR N2O5 OR N3O OR N3O2 OR N3O3 OR N3O4 OR N3O5 OR
                N4O OR N4O2 OR N4O3 OR N4O4 OR N4O5 OR N5O OR N5O2 OR
                N5O3 OR N5O4 OR N5O5

     FILE 'HCA' ENTERED AT 18:29:10 ON 10 SEP 2008
L15      454096 SEA L4 OR L13 OR L14
L16      305452 SEA L5 OR L6 OR (TITANIUM# OR TI)(W)(OXIDE# OR DIOXIDE#)
                OR TITANIA# OR TIO2
L17       10930 SEA L9 OR TUNGSTIC#(2A)(ACID# OR SALT#)
L18       23798 SEA TUNGSTATE#
L19       41369 SEA L12 OR (CERIUM# OR CE)(W)(OXIDE# OR MONOXIDE# OR
                DIOXIDE#) OR CERIA# OR CEO OR CEO2
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L20         1869 SEA (L5 OR L6) (L) HYDRAT? OR HYDRAT?(3A)((TITANIUM# OR
                 TI)(W)(OXIDE# OR DIOXIDE#) OR TITANIA# OR TIO2)
L21                QUE CAT# OR CATALY?
L22               0 SEA L21 AND L15 AND L20 AND L17 AND L19
L23               0 SEA L21 AND L15 AND L20 AND L18 AND L19
L24               5 SEA L21 AND L15 AND L16 AND L17 AND L19
L25               5 SEA L21 AND L15 AND L16 AND L18 AND L19
L26               8 SEA L24 OR L25
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=> FILE HCA
FILE 'HCA' ENTERED AT 18:41:20 ON 10 SEP 2008
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=> D L26 1-8 BIB ABS HITSTR HITIND
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L26 ANSWER 1 OF 8 HCA COPYRIGHT 2008 ACS on STN

AN 148:478125 HCA Full-text

TI Process for the selective photocatalytic reduction of high concentration NOx at room temperature and preparation of the catalyst

IN Wu, Zhongbiao; Jin, Ruiben; Liu, Yue; Jiang, Boqiong; Wang, Haiqiang; Guan, Baohong; Zhao, Weirong

PA Zhejiang University, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 13pp.
CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 101147844	A	20080326	CN 2007-10070140	200707 20

PRAI CN 2007-10070140 20070720

AB A process for the selective photocatalytic redn. of high concn. NOx includes mixing the flue gas and the reductive gas NH3, introducing the gas mixt. into a reactor and contacting with a catalyst under light irradn., proceeding the photocatalytic redn. reaction at room temp. to form N2 which is discharged. The catalyst is a doped

titania catalyst prepd. by a hydrothermal method, and the doping element is Si, Zr, W, or Ce. The catalyst is prepd. by (1) mixing an alkoxy compd. of Ti, alc., water and a salt of the doping element, forming a ppt.; (2) proceeding the hydrothermal reaction at 60-360° for 1-50 h; (3) centrifuge sepg., washing the filter cake with deionized water and ethanol, drying, and calcining to obtain the doped titania catalyst. When treating NOx with a concn. of 200-2000 ppm in flue gas at room temp., the denitrification efficiency can reach up to 70%.

IT 13463-67-7P, Titania, processes
(doped; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)

RN 13463-67-7 HCA

CN Titanium oxide (TiO2) (CA INDEX NAME)

IT 10102-43-9, Nitrogen monoxide, processes
11104-93-1, Nitrogen oxide, processes
(selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

RN 11104-93-1 HCA

CN Nitrogen oxide (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 1306-38-3P, Ceria, processes
(titania doped with; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)

RN 1306-38-3 HCA

CN Cerium oxide (CeO2) (CA INDEX NAME)

CC 59-4 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 67, 74
ST prepn photocatalyst nitrogen oxide selective redn ammonia flue gas
IT Glass fibers, uses
(catalyst support; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT Reduction catalysts
(photoredn.; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT Flue gases
(selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT 13463-67-7P, Titania, processes
(doped; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT 7664-41-7, Ammonia, processes
(reductant; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT 7727-37-9, Nitrogen, processes
(selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT 10102-43-9, Nitrogen monoxide, processes
11104-93-1, Nitrogen oxide, processes
(selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT 78-10-4, Tetraethyl orthosilicate 546-68-9, Titanium isopropoxide 682-01-9, Propyl silicate 2171-98-4, Zirconium isopropoxide 5593-70-4, Tetrabutyl titanate 7699-43-6, Zirconium oxychloride 11120-01-7, Sodium tungstate 12028-06-7, Ammonium paratungstate 12028-48-7, Ammonium metatungstate 13746-89-9, Zirconium nitrate 17309-53-4, Cerium nitrate 23519-77-9, Zirconium propoxide
(selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)
IT 1306-38-3P, Ceria, processes 1314-23-4P, Zirconia, processes 1314-35-8P, Tungsten oxide, processes 7631-86-9P, Silica, processes
(titania doped with; selective photocatalytic redn. of high concn. NOx at room temp. and prepn. of photocatalyst)

L26 ANSWER 2 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 140:257793 HCA Full-text
TI Method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it

IN Flores Moreno, Jorge; Figueras, Francois; Delahay, Gerard; Coq, Bernard; Lehaut-Burnouf, Corinne

PA Millennium Chemicals Thann SAS, Fr.; Centre National de la Recherche Scientifique

SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022225	A2	20040318	WO 2003-IB4244	20030909
WO 2004022225	A3	20050324		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003264331	A1	20040329	AU 2003-264331	200309 09

PRAI WO 2002-IB3612 A 20020909
US 2003-440358P P 20030116
WO 2003-IB4244 W 20030909

AB The present invention concerns a method for treating exhaust gases contg. sulfur dioxides and NOx generated by a diesel or lean-burn engine comprising the steps of:(a) providing an acidic catalytic material comprising a noble metal-doped metal oxide material wherein the noble metal is present in the form of at least an oxidized species of rhodium in the exhaust gas system of said vehicle, and(b) exposing said exhaust gases to said catalytic material.

IT 13463-67-7, DT 51, uses
(GP 350, G 5, DT 51D, DT 51; method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)

RN 13463-67-7 HCA

CN Titanium oxide (TiO2) (CA INDEX NAME)

IT 11129-18-3, Cerium oxide
(method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)
RN 11129-18-3 HCA
CN Cerium oxide (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 11104-93-1, Nitrogen oxide, reactions
(method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)
RN 11104-93-1 HCA
CN Nitrogen oxide (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM B01J023-46
ICS B01D053-94
CC 59-3 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 67
ST conversion nitrogen oxide engine exhaust gas catalyst; noble metal doped metal oxide nitrogen oxide conversion catalyst
IT Air pollution
(control; method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)
IT Exhaust gases (engine)
(diesel; method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)
IT Acidity
Catalysts
Combustion gases
Doping
(method for converting nitrogen oxides (NOz) in exhaust gases and catalyst useful for it)
IT Molybdates
Noble metals
Oxides (inorganic), uses
Phosphates, uses
(method for converting nitrogen oxides (

NOx) in exhaust gases and catalyst useful for it)

IT Functional groups
(sulfate; method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)

IT Group VIB element compounds
(tungstates; method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)

IT 13463-67-7, DT 51, uses
(GP 350, G 5, DT 51D, DT 51; method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)

IT 1304-28-5, Barium oxide, uses 1314-23-4, Zirconia, uses 1314-35-8, Tungsten oxide, uses 1344-28-1, Alumina, uses 7440-16-6, Rhodium, uses 7631-86-9, Silica, uses 11129-18-3, Cerium oxide
(method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)

IT 7446-09-5, Sulfur dioxide, reactions 11104-93-1, Nitrogen oxide, reactions
(method for converting nitrogen oxides (NOx) in exhaust gases and catalyst useful for it)

L26 ANSWER 3 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 139:201488 HCA Full-text
TI Catalyst for nitrogen oxides removal from high-temperature exhaust gases
IN Kato, Yasuyoshi; Konda, Naomi; Nagai, Yoshinori
PA Babcock-Hitachi K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003251180	A	20030909	JP 2002-56240	20020301
TW 278343	B	20070411	TW 2003-92104298	20030227

CA 2486158 A1 20030912 CA 2003-2486158
200302
28
WO 2003074170 A1 20030912 WO 2003-JP2326
200302
28
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2003211354 A1 20030916 AU 2003-211354
200302
28
EP 1484109 A1 20041208 EP 2003-707175
200302
28
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
CN 1642636 A 20050720 CN 2003-807108
200302
28
NO 2004003942 A 20040921 NO 2004-3942
200409
21
US 20050130836 A1 20050616 US 2005-506444
200502
04
PRAI JP 2002-56240 A 20020301
WO 2003-JP2326 W 20030228

AB The title catalyst is prepd. by mixing Ti hydroxide or its dry body with tungstic acid or its salts, CeO2 and aq. medium to form a catalyst slurry or paste, spray coating of the catalyst slurry or paste onto a ceramic fiber sheet support or corrugated metallic honeycomb support, and then calcining. The catalyst is useful for NOx removal from turbine exhaust gases at ≥450°.

IT 11104-93-1, Nitrogen oxide, processes
(catalyst for nitrogen oxides removal from high-temp. exhaust gases)
RN 11104-93-1 HCA

CN Nitrogen oxide (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 15855-70-6, Ammonium tungstate
(in prepn. of denitration catalyst for high-temp. exhaust gas treatment)
RN 15855-70-6 HCA
CN Tungstate (WO42-), diammonium, (T-4)- (9CI) (CA INDEX NAME)

●2 NH_4^+

IT 1306-38-3, Cerium dioxide, uses
13463-67-7, Titania, uses
(on ceramic fiber sheet support or corrugated metallic honeycomb support; catalyst for nitrogen oxides removal from high-temp. exhaust gases)
RN 1306-38-3 HCA
CN Cerium oxide (CeO2) (CA INDEX NAME)

RN 13463-67-7 HCA
CN Titanium oxide (TiO2) (CA INDEX NAME)

IC ICM B01J023-30
ICS B01D053-94; B01J037-02; F01N003-08
CC 59-3 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 67
ST catalyst nitrogen oxide removal
turbine exhaust gas
IT Exhaust gases (engine)
(catalyst for nitrogen oxides

removal from high-temp. exhaust gases)
IT Denitration catalysts
(for nitrogen oxides removal from high-temp. exhaust gases)
IT 11104-93-1, Nitrogen oxide, processes
(catalyst for nitrogen oxides removal from high-temp. exhaust gases)
IT 10108-73-3, Cerium trinitrate 12028-48-7, Ammonium metatungstate 15855-70-6, Ammonium tungstate
(in prepn. of denitration catalyst for high-temp. exhaust gas treatment)
IT 1306-38-3, Cerium dioxide, uses 1314-35-8, Tungsten trioxide, uses 13463-67-7, Titania, uses
(on ceramic fiber sheet support or corrugated metallic honeycomb support; catalyst for nitrogen oxides removal from high-temp. exhaust gases)

L26 ANSWER 4 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 137:341584 HCA Full-text
TI Mediated electrochemical oxidation of biological waste materials
IN Carson, Roger W.; Bremer, Bruce W.
PA The C & M Group, LLC, USA
SO PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002085793	A1	20021031	WO 2002-US12795	200204 24
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20030024879	A1	20030206	US 2002-127604	200204 23

	US 7387719	B2	20080617		
	AU 2002258953	A1	20021105	AU 2002-258953	200204 24
	CN 1512967	A	20040714	CN 2002-810778	200204 24
	JP 2005505398	T	20050224	JP 2002-583330	200204 24
	MX 2003PA09702	A	20040910	MX 2003-PA9702	200310 23
PRAI	US 2001-285708P	P	20010424		
	US 2002-127604	A	20020423		
	WO 2002-US12795	W	20020424		

AB Mediated electrochem. oxidn. treats, oxidizes and destroys liq., solid, or mixed solid and liq. biol. waste, including medical, infectious, pathol., animal, sanitary, mortuary, ship, veterinary, pharmaceutical and combined waste. A preferred embodiment of the MEO process used in this invention generates the perbromate ion as the oxidizing mediator species will be used to destroy stainless steel products such as sharps, which include but are not limited to syringe needles, scalpels, and sutures. Electrolytes contain oxidized forms of reversible redox couples produced in an anode compartment. Oxidized forms of redox couples are produced by anodic oxidn. or reaction with oxidized forms of other redox couples. Oxidized species of the redox couples oxidize the biol. waste mols. and are reduced and reoxidized. The redox cycle continues until all oxidizable waste and intermediate reaction products have undergone oxidn. The overall process results in the biol. waste being converted to carbon dioxide, water, and a small amt. of inorg. compds. in soln. or as a ppt., which will be extd. by the inorg. compd. removal and treatment system. Temps. between ambient and 1000 °C avoid formation of dioxins or furans.

IT 1306-38-3, Cerium oxide ceo2, processes 1344-55-4, Titanium peroxide tio3 1345-13-7, Cerium oxide ce2o3 7783-03-1, Tungstic acid 12133-57-2, Cerium oxide ceo3 12179-34-9, Titanium(2+), peroxy- 13463-67-7, Titanium oxide (TiO2), processes 14797-55-8, Nitrate, processes 60635-32-7, Titanium(1+), oxo- 81735-99-1
(electrochem. mediator; mediated electrochem. oxidn. of biol. waste materials)

RN 1306-38-3 HCA

CN Cerium oxide (CeO2) (CA INDEX NAME)

RN 1344-55-4 HCA
CN Titanium oxide peroxide (TiO(O2)) (CA INDEX NAME)

RN 1345-13-7 HCA
CN Cerium oxide (Ce2O3) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 7783-03-1 HCA
CN Tungstate (WO42-), hydrogen (1:2), (T-4)- (CA INDEX NAME)

RN 12133-57-2 HCA
CN Cerium oxide (CeO3) (8CI, 9CI) (CA INDEX NAME)

RN 12179-34-9 HCA
CN Titanium(2+), peroxy- (9CI) (CA INDEX NAME)

RN 13463-67-7 HCA
CN Titanium oxide (TiO2) (CA INDEX NAME)

RN 14797-55-8 HCA
CN Nitrate (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 60635-32-7 HCA
CN Titanium(1+), oxo- (9CI) (CA INDEX NAME)

RN 81735-99-1 HCA
CN Titanate (TiO41-), (T-4)- (9CI) (CA INDEX NAME)

IC ICM C02F001-46
ICS C25F005-00
CC 60-2 (Waste Treatment and Disposal)
Section cross-reference(s): 59
IT Catalysts
(added to electrolyte to speed mediated electrochem. processes;

mediated electrochem. oxidn. of biol. waste materials)

IT 71-52-3, Bicarbonate, processes 463-79-6, Carbonic acid, processes 563-69-9, MonoPeroxycarbonic acid 1301-96-8, Silver oxide ago 1303-52-2, Auric hydroxide 1303-58-8, Auric oxide 1304-29-6, Barium peroxide 1305-79-9, Calcium peroxide 1306-38-3, Cerium oxide ceo2, processes 1308-04-9, Cobalt oxide co2o3 1308-14-1, Chromium hydroxide cr(oh)3 1308-38-9, Chromium oxide cr2o3, processes 1309-60-0, Lead oxide (PbO2) 1312-46-5, Iridium oxide ir2o3 1313-13-9, Manganese dioxide mno2, processes 1313-27-5, Molybdenum oxide (MoO3), processes 1313-96-8, Niobium pentoxide 1313-97-9, Neodymium oxide nd2o3 1314-06-3, Nickel oxide ni2o3 1314-15-4, Platinum oxide pto2 1314-18-7, Strontium peroxide 1314-22-3, Zinc peroxide 1314-27-8, Lead sesquioxide 1314-32-5, Thallium sesquioxide 1314-35-8, Tungsten trioxide wo3, processes 1314-41-6, Lead oxide pb3o4 1314-62-1, Vanadium oxide (V2O5), processes 1317-36-8, Plumbous oxide, processes 1317-54-0, Ferrite 1344-55-4, Titanium peroxide tio3 1344-58-7, Uranium oxide uo3 1345-13-7, Cerium oxide ce2o3 2466-09-3, Pyrophosphoric acid 3812-32-6, Carbonate, processes 7601-90-3, Perchloric acid, processes 7722-86-3, Monoperoxysulfuric acid 7738-94-5, Chromic acid (H2CrO4) 7778-39-4, Arsenic acid 7782-68-5, Iodic acid 7782-91-4, Molybdic acid 7783-03-1, Tungstic acid 7783-08-6, Selenic acid 7789-31-3, Bromic acid 7790-92-3, Hypochlorous acid 7790-93-4, Chloric acid 10043-35-3, Orthoboric acid, processes 10343-62-1, Metaphosphoric acid (HPO3) 10380-08-2, Triphosphoric acid 11116-47-5, Molybdate 11120-48-2, Telluric acid 12002-97-0, Silver sesquioxide 12005-67-3, Americium dioxide 12016-80-7, Cobalt hydroxide oxide 12017-00-4, Cobalt oxide coo2 12018-01-8, Chromium dioxide cro2 12019-06-6, Copper peroxide 12030-49-8, Iridium oxide iro2 12030-50-1, Iridium oxide (IrO3) 12035-36-8, Nickel oxide nio2 12036-04-3, Palladium oxide pdo2 12036-05-4, Praseodymium oxide pro2 12036-10-1, Ruthenium dioxide ruo2 12036-15-6, Terbium oxide tbo2 12036-32-7, Praseodymium oxide pr2o3 12036-35-0, Rhodium oxide rh2o3 12036-36-1, Ruthenium oxide ruo3 12036-41-8, Terbium oxide tb2o3 12036-71-4, Uranium oxide uo4 12048-50-9, Bismuth tetroxide 12054-72-7, Stannic hydroxide 12059-95-9, Plutonium oxide (PuO2) 12060-06-9, Ruthenium oxide ru2o3 12125-54-1, Nickel(1+), hydroxy- 12133-57-2, Cerium oxide ceo3 12134-79-1, GErmanic acid 12135-13-6, Mercuric hydroxide 12135-42-1, Ruthenium hydroxide Ru(OH)3 12135-49-8, Rhodium hydroxide (Rh(OH)4), (T-4)- 12137-27-8, Rhodium oxide rho2 12137-44-9, Ruthenium oxide ru2o5 12143-28-1, Polonium oxide (PoO3) 12165-03-6, Plutonium oxide pu2o5 12168-64-8, Lead hydroxide (PbOH1+) 12179-34-9,

Titanium(2+), peroxy- 12181-34-9, Ruthenium hydroxide ru(OH)4 12188-35-1 12228-79-4, Tetraboric acid H2B4O7 12254-53-4, Americium tetrahydroxide 12258-53-6, Borate(2-), heptaoxotetra- 12298-67-8, Mercuric peroxide 12298-97-4, Zirconium(2+), oxo- 12299-69-3, Iron(2+), hydroxy- 12299-76-2, Plumbate (Pb(OH)O1-) 12300-16-2, Plumbate (PbO32-) 12311-78-3, Plutonium oxide puo3 12323-66-9, Americyl ion(2+ 12401-90-0, Neodymium oxide ndo2 12447-33-5, Borate(1-), hydroxyhexaoxotetra- 12503-09-2, Peroxyniobate (NbO2(O2)1-) 12529-60-1, Germanate (Ge5(OH)O10l-) 12600-79-2, Zirconium oxide zr2o5 12725-92-7, Platinum oxide pt2o3 13444-71-8, Periodic acid 13463-67-7, Titanium ozide (TiO2), processes 13470-24-1 13517-11-8, Hypobromous acid 13598-52-2, Peroxymonophosphoric acid 13813-62-2, Tetraphosphoric acid 13825-81-5, Peroxydiphosphoric acid (H4P2O8) 13898-47-0, Chlorous acid 13907-45-4, Chromate cro42- 13907-47-6, Dichromate 13981-20-9, Vanadate (VO3-) 14066-19-4, Phosphate, hydrogen, processes 14066-20-7, Phosphate, dihydrogen, processes 14100-65-3, Metaborate 14124-68-6, Selenate 14127-61-8, Calcium ion, processes 14213-97-9, Orthoborate 14259-84-8, Molybdate (HMoO41-) 14265-44-2, Phosphate, processes 14280-50-3, Lead ion pb2+, processes 14302-87-5, Mercuric ion, processes 14311-52-5, Tungstate wo42- 14332-21-9, Hypoiodous acid 14332-31-1, Hydrogen niobate (HNbO3) 14333-13-2, Permanganate 14333-18-7, Vanadate (VO43-) 14333-21-2, Perruthenate (RuO4-) 14333-22-3, Ruthenate (RuO42-), (T-4)- 14380-61-1, Hypochlorite 14380-62-2, Hypobromite 14452-57-4, Magnesium peroxide 14546-48-6, Manganese ion mn3+, processes 14627-67-9, Thallic ion, processes 14701-21-4, Silver ion ag+, processes 14701-22-5, Nickel ion ni2+, processes 14797-55-8, Nitrate, processes 14797-73-0, Perchlorate 14808-79-8, Sulfate, processes 14866-68-3, Chlorate 14913-52-1, Neodymium ion nd3+, processes 14996-02-2, Sulfate, hydrogen-, processes 14998-27-7, Chlorite 14998-57-3, Selenate, hydrogen- 15046-91-0, Silver ion Ag2+, processes 15056-35-6, Periodate (IO41-) 15065-65-3, Hypoiodite 15092-81-6, Peroxydisulfate ((SO3)2O22-) 15158-11-9, Cupric ion, processes 15158-12-0, Lead ion pb4+, processes 15391-91-0 15438-31-0, Ferrous ion, processes 15454-31-6, Iodate 15541-45-4, Bromate 15543-40-5, Zirconium ion Zr+4, processes 15584-04-0, Arsenate 15596-54-0, Chromate (CrO42-), monohydrogen 15785-09-8, Cerium hydroxide (Ce(OH)3) 15845-23-5, Tellurate (TeO42-) 15906-92-0, Chromium(2+), hydroxy- 16065-83-1, Chromium ion cr3+, processes 16065-84-2, Germanium ion Ge4+, processes 16065-88-6, Palladium ion pd2+, processes 16065-89-7, Rhodium ion rh3+, processes 16065-90-0, Cerium ion ce4+, processes 16065-92-2, Thorium ion th4+, processes 16397-91-4, Manganese ion mn2+, processes 16408-24-5, Iron(1+), dihydroxy- 16469-16-2, Praseodymium

trihydroxide 16518-47-1, Dihydrogen arsenate 16637-16-4, Uranyl ion 16844-87-4, Arsenate (AsO43-), monohydrogen 16887-00-6, Chloride, processes 18252-79-4, Vanadium(1+), dioxo- 18282-10-5, Stannic oxide 18923-26-7, Cerium ion ce3+, processes 19445-25-1, Perbromic acid 19583-16-5, Cuprate CuO21- 20074-52-6, Ferric ion, processes 20334-17-2, Praseodymium ion pr4+, processes 20427-56-9, Ruthenium oxide ruo4 20461-54-5, Iodide, processes 20499-55-2, Iodite (IO21-) 20561-59-5, Rhodium, ion (Rh1+), processes 20611-56-7, Tungsten hydroxide oxide peroxide (W(OH)2O(O2)) 20681-14-5, processes 21057-99-8, Neptunyl ion(1+) 21132-88-7, Tungstate(2-), trioxoperoxy- 21563-95-1, Niobate (NbO31-) 21792-06-3, Arsenate (AsO31-) 21879-62-9, Bismuth ion bi3-, processes 22119-26-2, Niobate nbo43- 22537-22-0, Magnesium ion, processes 22537-39-9, Strontium ion sr2+, processes 22537-50-4, Stannic ion, processes 22537-56-0, Thallous ion, processes 22537-58-2, Polonium ion po2+, processes 22541-12-4, Barium ion, processes 22541-14-6, Praseodymium ion pr3+, processes 22541-20-4, Terbium ion tb3+, processes 22541-25-9, Hafnium ion hf4+, processes 22541-44-2, Plutonium ion pu4+, processes 22541-46-4, Americium ion am3+, processes 22541-53-3, Cobalt ion co2+, processes 22541-58-8, Ruthenium ion ru4+, processes 22541-59-9, Ruthenium ion ru2+, processes 22541-60-2, Rhodium ion rh2+, processes 22541-63-5, Cobalt ion co3+, processes 22541-64-6, Nickel ion ni3+, processes 22541-70-4, Plutonium ion pu3+, processes 22541-88-4, Ruthenium ion ru3+, processes 22542-10-5, Platinum ion Pt2+, processes 22555-00-6, Iridium ion ir3+, processes 22569-48-8, Zinc(1+), hydroxy- 22840-44-4, Ferrate (Fe(OH)O1-) 22853-00-5, Plutonyl ion(2+) 22878-02-0, Americyl ion(1+ 22890-32-0, Germanate GeO32- 22967-56-2, Plutonyl ion(1+) 23078-02-6, Niobium oxide peroxide (NbO2(OOH)) 23689-41-0, Periodate I2O94- 23713-49-7, Zinc ion, processes 24573-97-5, Chromate (CrO33-) 24959-67-9, Bromide, processes 25141-14-4, Iridium tetrahydroxide 26398-91-4, Borate (B2O54-) 26404-66-0, Pernitric acid 26450-38-4, Vanadate (VO43-), monohydrogen 27641-41-4, Peroxydicarbonic acid 27805-32-9, Plumbate pbo22- 30770-97-9, Iodous acid 31865-44-8 34274-25-4 35366-11-1, Argentate AgO1- 35984-07-7, Bismuth oxide bi2o5 36905-27-8, Hafnium(2+) oxo- 37382-01-7, Nickelate nio22- 37691-27-3, Bromous acid 38668-37-0, Stannate (SnO32-)
(electrochem. mediator; mediated electrochem. oxidn. of biol. waste materials)

IT 39051-24-6, Zincate (ZnO22-) 39201-27-9, Borate H2BO3- 39321-12-5, Manganate 39349-73-0, Perborate 41618-72-8, Bismuth(2+), hydroxy- 41705-98-0, Cerium(3+), hydroxy- 43336-67-0, Thorium(2+), oxo- 43470-59-3, Borate (BO33-), hydrogen 52057-05-3, Cuprate CuO22- 52110-71-1, Ferrate 53293-42-8, Chromite (anion) 57362-08-0, Bismuthate (BiO31-) 57425-17-9,

Iridium hydroxide 59458-31-0, Tantalate tao31- 60294-90-8, Gold peroxide auo2 60370-37-8, Germanate (Ge5O112-) 60635-32-7 , Titanium(1+), oxo- 62647-38-5, Germanate (Ge(OH)O21-) 62905-81-1, Bismuth(1+), oxo- 64128-13-8, Periodate (IO53-) 65046-83-5, Bismuthate (BiO21-) 65365-91-5, Cobaltate (Co(OH)O1-) 65597-34-4, Neptunium oxide npo3 67062-60-6, Cerium(2+), hydroxy- 67251-55-2, Ruthenium(2+), dioxo- 67588-88-9, Chromium(1+), dihydroxy- 77883-44-4, Platinum trioxide 78885-79-7, Nickelate (Ni(OH)O1-) 79235-94-2, Palladium oxide (PdO3) 80441-12-9, Iron(1+), peroxy- 80441-13-0, Iron(2+), peroxy- 80680-07-5, Palladium oxide pd2o3 81256-78-2, Peroxydiselenic acid ([(HO)SeO2]O2) 81735-99-1 81736-00-7 81931-07-9 91934-12-2, Stannate (Sn(OH)O21-) 92076-86-3, Molybdate (MoO41-) 98943-14-7, Titanate (Ti(OH)O21-) 99886-86-9, Zirconyl peroxide 99900-43-3, Zincate (Zn(OH)O1-) 100356-34-1, Tantalum hydroxide oxide peroxide (Ta(OH)O(O2)) 107480-19-3, Tellurate (TeO41-), hydrogen 109973-81-1, Gold(1+), oxo- 112868-56-1 114348-12-8, Vanadate (V2(OH)3O41-) 115518-64-4, Iron(1+), superoxido- 119176-24-8, Cuprate (Cu(OH)O1-) 127241-68-3, Bismuth oxide bi4o7 128206-90-6, Ruthenate (Ru(OH)O41-) 132516-16-6, Vanadic(V) acid (H4V6O17) 144013-64-9, Zirconate (Zr(OH)O21-) 144122-92-9, Palladate (PdO22-) 148020-55-7 148753-26-8, Palladate pdo32- 150148-58-6, Germanium hydroxide oxide (Ge2(OH)2O3) 150148-60-0, Germanium hydroxide oxide (Ge4(OH)2O7) 152629-75-9, Neptunium peroxide (Np(O2)2), (T-4)- 163686-95-1, Copper oxide cu2o3 171263-24-4, Niobium oxide peroxide (Nb2O3(O2)2) 184684-50-2, Hafnium oxide peroxide hfo(o2) 198642-16-9, Platinate (PtO42-), (T-4)- 198830-41-0, Titanium(1+), hydroxy- 217082-84-3, Vanadium hydroxide oxide (V2(OH)4O3) 252652-70-3, Silver(1+), oxo- 331267-19-7, Vanadate (VO51-) 433227-62-4, Arsenic(1+), peroxy- 474124-02-2, Thallium oxide (Tl3O5) 474124-03-3, Germanium hydroxide oxide (Ge5(OH)2O9) 474124-04-4, Zirconium oxide (Zr2O7) 474124-05-5, Tantalum oxide (Ta2O7) 474124-06-6, Tellurium hydroxide oxide (Te(OH)O3) 474124-07-7 474124-08-8, Chlorate (ClO53-) 474124-09-9 474124-10-2, Bromate (BrO53-) 474124-11-3 474124-12-4, Ruthenium hydroxide oxide (Ru(OH)2O3) 474124-13-5, Rhodium oxide (RhO3) 474124-14-6, Americium oxide (Am2O5) 474265-52-6, Aurate (Au(OH)2O1-) 474265-53-7, Aurate (Au(OH)O22-) 474265-54-8, Aurate (AuO33-) 474265-55-9, Mercurate (Hg(OH)O1-) 474265-56-0, Plumbate (Pb(OH)O21-) 474265-57-1 474265-59-3, Polonate (PoO32-) 474265-60-6 474265-62-8 474265-64-0, Manganate (Mn(OH)O1-) 474265-66-2, Nickelate (NiO42-) 474265-68-4 474265-69-5 474265-70-8, Platinate (PtO32-) 474265-71-9 474265-72-0 474265-73-1, Thorate (Th(OH)O31-) 474265-75-3, Thorium oxide peroxide (ThO(O2)) 474265-76-4, Uranate (U(OH)O41-) 474265-77-5, Uranate (UO52-) 474265-78-6, Americium oxide peroxide (AmO(O2))

(electrochem. mediator; mediated electrochem. oxidn. of biol. waste materials)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 121:116575 HCA Full-text
OREF 121:20897a,20900a
TI A two-stage catalyst system for treatment of exhaust gases from internal combustion engines.
IN Subramanian, Somasundaram; Kudla, Robert J.; Chattha, Mohinder S.
PA Ford Motor Co., UK; Ford France S. A.; Ford-Werke Aktiengesellschaft
SO Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 605995	A1	19940713	EP 1993-310349	19931220
EP 605995	B1	19980916		
R: DE, FR, GB				
US 5399324	A	19950321	US 1994-255847	19940608
PRAI US 1993-1969	A	19930108		

AB A catalyst for promoting oxidn.-redn. reactions of the exhaust gases produced by an internal combustion engine comprises a two-stage system of a 1st-stage nitric oxide removal (by redn.) catalyst and a 2nd-stage carbon monoxide and hydrocarbon removal (by oxidn.) catalyst. The 1st-stage catalyst comprises 0.1- 3 wt.% tungsten loaded on a support material comprising mostly γ-alumina. The 2nd-stage catalyst is an oxidn. catalyst such as platinum on alumina.
IT 7783-03-1
(in manuf. of two-stage catalyst system for treatment of exhaust gases)
RN 7783-03-1 HCA
CN Tungstate (WO42-), hydrogen (1:2), (T-4)- (CA INDEX NAME)

IT 11104-93-1, Nitrogen oxides, miscellaneous
(removal of, from exhaust gases, two-stage catalyst system for)
RN 11104-93-1 HCA
CN Nitrogen oxide (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 1306-38-3, Ceria, uses 13463-67-7, Titania, uses
(support contg., in two-stage catalyst system for treatment of exhaust gases)
RN 1306-38-3 HCA
CN Cerium oxide (CeO2) (CA INDEX NAME)

RN 13463-67-7 HCA
CN Titanium oxide (TiO2) (CA INDEX NAME)

IC ICM B01D053-36
CC 59-3 (Air Pollution and Industrial Hygiene)
ST exhaust gas treatment catalyst; nitrogen oxide removal exhaust gas treatment; carbon monoxide removal exhaust gas treatment; hydrocarbon removal exhaust gas treatment
IT Platinum-group metals
(catalyst contg., two-stage, for treatment of exhaust gases)
IT Tungsten halides
(in manuf. of two-stage catalyst system for treatment

of exhaust gases)
IT Exhaust gases
(treatment of, two-stage catalyst system for)
IT Catalysts and Catalysis
(two-stage, for treatment of exhaust gases)
IT 1314-35-8, Tungsten trioxide, uses 7440-05-3, Palladium, uses 7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-18-8, Ruthenium, uses 7440-33-7, Tungsten, uses
(catalyst contg., two-stage, for treatment of exhaust gases)
IT 7783-03-1 12028-48-7, Ammonium metatungstate 21292-49-9
(in manuf. of two-stage catalyst system for treatment of exhaust gases)
IT 630-08-0, Carbon monoxide, miscellaneous 11104-93-1, Nitrogen oxides, miscellaneous
(removal of, from exhaust gases, two-stage catalyst system for)
IT 1304-28-5, Barium oxide, uses 1306-38-3, Ceria, uses 1312-81-8, Lanthanum oxide 1314-23-4, Zirconium oxide, uses 1344-28-1, Alumina, uses 13463-67-7, Titania, uses
(support contg., in two-stage catalyst system for treatment of exhaust gases)

L26 ANSWER 6 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 121:116574 HCA Full-text
OREF 121:20897a,20900a
TI Base metal-only catalyst system for internal combustion engines.
IN Subramanian, Somasundaram; Kudla, Robert J.; Chattha, Mohinder S.
PA Ford Motor Co., UK; Ford-Werke Aktiengesellschaft; Ford France S. A.
SO Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 605991	A1	19940713	EP 1993-310345	19931220
	R: DE, FR, GB				
	JP 07000829	A	19950106	JP 1993-336755	19931228
	US 5618505	A	19970408	US 1994-296638	

PRAI US 1993-1702 A 19930107

AB A catalyst for promoting oxidn.-redn. reactions of the exhaust gases produced by an internal combustion engine comprises a 1st-stage high temp. catalyst and a 2nd-stage lower temp. catalyst. The 1st-stage catalyst comprises 0.1-3 wt.% tungsten loaded on a support material comprising mostly γ-alumina. The 2nd-stage catalyst preferably comprises 0.1-6 wt.% copper loaded on a support material comprising mostly γ-alumina.

IT 7783-03-1
(in manuf. of base metal-only catalyst system for treatment of exhaust gases)

RN 7783-03-1 HCA

CN Tungstate (WO42-), hydrogen (1:2), (T-4)- (CA INDEX NAME)

●2 H^+

IT 11104-93-1, Nitrogen oxides, miscellaneous
(removal of, from exhaust gases, base metal-only catalyst system for)

RN 11104-93-1 HCA

CN Nitrogen oxide (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 1306-38-3, Cerium oxide, uses
13463-67-7, Titanium oxide, uses
(support contg., in base metal-only catalyst system for treatment of exhaust gases)

RN 1306-38-3 HCA

CN Cerium oxide (CeO2) (CA INDEX NAME)

RN 13463-67-7 HCA

CN Titanium oxide (TiO2) (CA INDEX NAME)

IC ICM B01D053-36
CC 59-3 (Air Pollution and Industrial Hygiene)
ST exhaust gas treatment catalyst; base metal catalyst exhaust gas treatment; tungsten catalyst exhaust gas treatment; copper catalyst exhaust gas treatment; alumina support copper tungsten catalyst; oxidn redn catalyst exhaust gas treatment
IT Transition metals, uses
(catalyst contg., two-stage, for exhaust gas treatment)
IT Tungsten halides
(in manuf. of base metal-only catalyst system for treatment of exhaust gases)
IT Exhaust gases
(treatment of, base metal-only catalyst system for)
IT Redox reaction catalysts
(two-stage, base metal-only, for treatment of exhaust gases)
IT 7439-89-6, Iron, uses 7439-96-5, Manganese, uses 7440-47-3, Chromium, uses 7440-48-4, Cobalt, uses 7440-50-8, Copper, uses
(catalyst contg., two-stage, for exhaust gas treatment)
IT 142-71-2, Copper acetate 815-82-7, Cupric tartrate 3251-23-8, Copper nitrate 7758-98-7, Copper sulfate, uses 7783-03-1 12028-48-7, Ammonium metatungstate 13395-16-9 14854-78-5, Hexaamminecopper dichloride 21292-49-9 31058-64-7
(in manuf. of base metal-only catalyst system for treatment of exhaust gases)
IT 630-08-0, Carbon monoxide, miscellaneous 11104-93-1, Nitrogen oxides, miscellaneous
(removal of, from exhaust gases, base metal-only catalyst system for)
IT 1304-28-5, Barium oxide, uses 1306-38-3, Cerium oxide, uses 1312-81-8, Lanthanum oxide 1314-23-4, Zirconium oxide, uses 13463-67-7, Titanium oxide, uses
(support contg., in base metal-only catalyst system for treatment of exhaust gases)
IT 1344-28-1, Alumina, uses
(support, in base metal-only catalyst system for treatment of exhaust gases)

L26 ANSWER 7 OF 8 HCA COPYRIGHT 2008 ACS on STN

AN 106:181958 HCA Full-text
OREF 106:29453a,29456a
TI Catalyst for reducing the nitrogen oxide content of combustion gases
IN Schneider, Michael; Kochloefl, Karl; Maletz, Gerd; Wernicke, Hans Jurgen
PA Sued-Chemie A.-G., Fed. Rep. Ger.
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 212513	A1	19870304	EP 1986-111025	19860809
	EP 212513	B1	19890906		
	R: AT, BE, CH, DE, FR, GB, LI, LU, NL, SE				
	DE 3529060	A1	19870226	DE 1985-3529060	19850813
	DE 3532226	A1	19870319	DE 1985-3532226	19850910
	AT 46089	T	19890915	AT 1986-111025	19860809
PRAI	DE 1985-3529060	A	19850813		
	DE 1985-3532226	A	19850910		
	EP 1986-111025	A	19860809		

AB Title redn. catalyst contains ≥1 of Ti, Zr, V, W, Mo, or Ce as ≥1 oxide combined with a 3-layer silicate comprising or contg. as main component talc, preferably an acid-activated but not x-ray amorphic talc with cryst. structure; the talc-oxide at. ratio is 0.2-50:1, preferably 0.4-25:1 and the BET surface of the talc is ≥15, preferably ≥50% based on that of the talc before acid-activation. Talc with BET surface 5 m2/g was mixed at 2 kg/8 L with aq. HCl soln. for 6 h at 80°, the filter cake was suctioned off and washed with water at pH 3.5 to give activated talc which was dried at 200° to have BET surface 33 m2/g. A suspension of 400 g of the talc was mixed with 180 g TiOSO4, neutralized with NH3, and suctioned, the solids were washed SO42--free, dried 15 h at 120°, and kneaded with 9.7 g WO3 as ammonia-alk. tungstic acid soln. and a soln. from redn. of 1.3 g ammonium metavanadate with 1.6 times excess oxalic acid dihydrate. The product had 77.1% pore vol. as macropores with diam.

>80 nm. This catalyst, contg. V2O5 0.2, WO3 1.8, TiO2 18, and talc 80%, gave NOx conversions of 42, 93, 98, and 98% at 250, 300, 350, and 400°, resp.

IT 1306-38-3, Cerium oxide (CeO2), uses and miscellaneous 13463-67-7, Titania, uses and miscellaneous
(redn. catalysts, acid-activated talc-based, for nitrogen oxides in flue gases)

RN 1306-38-3 HCA

CN Cerium oxide (CeO2) (CA INDEX NAME)

RN 13463-67-7 HCA

CN Titanium oxide (TiO2) (CA INDEX NAME)

IT 11104-93-1, uses and miscellaneous
(removal of, from flue gases, redn. catalysts for, acid-activated talc and oxides in)

RN 11104-93-1 HCA

CN Nitrogen oxide (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM B01D053-36
ICS B01J021-16; B01J029-02

CC 59-3 (Air Pollution and Industrial Hygiene)

ST redn catalyst acid activated talc; mixed oxide layered silicate catalyst; nitrogen oxide redn catalyst talc

IT Flue gases
(nitrogen oxide removal from, redn. catalysts for, acid-activated talc-based)

IT Reduction catalysts
(talc-based, acid-activated, for nitrogen oxides in flue gases)

IT 7664-41-7, Ammonia, reactions
(nitrogen oxide redn. by, in flue gases, catalysts for, acid-activated talc and oxides in)

IT 1306-38-3, Cerium oxide (CeO2), uses and miscellaneous 1313-27-5, Molybdenum oxide (MoO3), uses

and miscellaneous 1314-23-4, Zirconia, uses and miscellaneous 1314-35-8, Tungsten oxide (WO3), uses and miscellaneous 1314-62-1, Vanadium oxide (V2O5), uses and miscellaneous 13463-67-7, Titania, uses and miscellaneous
(redn. catalysts, acid-activated talc-based, for nitrogen oxides in flue gases)
IT 14807-96-6, Talc, uses and miscellaneous
(redn. catalysts, acid-activated, contg. oxides, for nitrogen oxides in flue gases)
IT 11104-93-1, uses and miscellaneous
(removal of, from flue gases, redn. catalysts for, acid-activated talc and oxides in)

L26 ANSWER 8 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 98:131635 HCA Full-text
OREF 98:19969a,19972a
TI Regeneration of denitration catalyst
PA NGK Insulators, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58000247	A	19830105	JP 1981-98361	19810626
	JP 62048537	B	19871014		
PRAI	JP 1981-98361		19810626		

AB Spent denitration catalyst (for redn. of NOx with NH3) contg. V2O5 and TiO2(optionally ≥1 of W, Mo, Fe, Cu, Cr, Ni, Co, and Ce oxides) is washed with water or aq. inorg. acid, soaked in aq. tungstate, and calcined at 400-650° for regeneration. Thus, a honeycomb of V2O5 3.0% and balance TiO2 was used for boiler flue gas 1000 m3/h contg. NOx 200 and SOx 800 ppm and mixed with 200 ppm NH3 at 300-400° and space velocity 6500 h-1. The denitration was 95.5 at 1st and 97.0% after 12,000 h and SO2 oxidn. 2.1 and 4.8%, resp. The spent catalyst was washed with water with supersonic wave application for 1 h, loaded with WO3 1 kg/m3, and calcined at 550° for 3 h. After regeneration of the catalyst, denitration was 96.0 and SO2 oxidn. was 1.8%.
IT 13463-67-7P, uses and miscellaneous
(catalysts contg. vanadium oxide and, tungsten addn. in regeneration of, for denitration of flue gas)
RN 13463-67-7 HCA

CN Titanium oxide (TiO2) (CA INDEX NAME)

IT 11104-93-1, uses and miscellaneous
(removal of, from flue gas, oxide catalyst regeneration for)
RN 11104-93-1 HCA
CN Nitrogen oxide (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC B01J023-92; B01J023-30; B01J023-94
ICA B01D053-36
CC 59-4 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 67
ST oxide catalyst regeneration tungsten oxide; flue gas denitration catalyst regeneration
IT Flue gases
(nitrogen oxide removal from, oxide catalysts regeneration for)
IT Reduction catalysts
(titanium oxide and vanadium oxide, tungsten oxide addn. in regeneration of, for denitration of flue gas)
IT 1314-62-1P, uses and miscellaneous
(catalysts contg. titanium oxide and, tungsten oxide addn. in regeneration of, for denitration of flue gas)
IT 13463-67-7P, uses and miscellaneous
(catalysts contg. vanadium oxide and, tungsten addn. in regeneration of, for denitration of flue gas)
IT 1314-35-8, uses and miscellaneous
(in titanium oxide-vanadium-oxide catalyst regeneration for denitration of flue gas)
IT 7446-09-5, reactions
(oxidn. of, in denitration of flue gas, catalysts regeneration for control of)
IT 7664-41-7, uses and miscellaneous
(redn. by, of nitrogen oxide in flue gas, oxide catalyst regeneration for)
IT 11104-93-1, uses and miscellaneous
(removal of, from flue gas, oxide catalyst regeneration for)